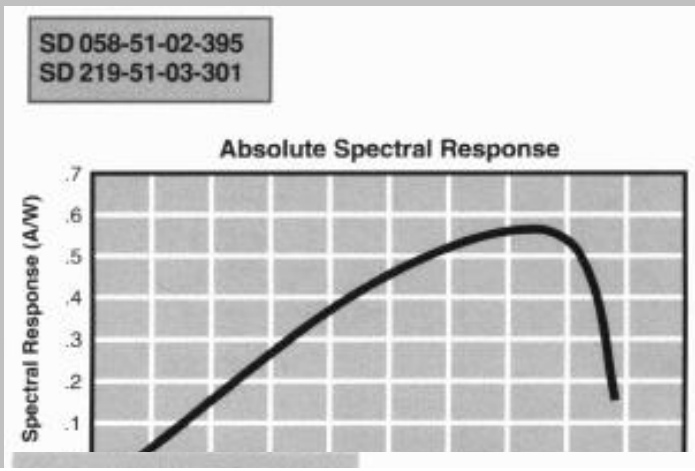
Photodiode Arrays

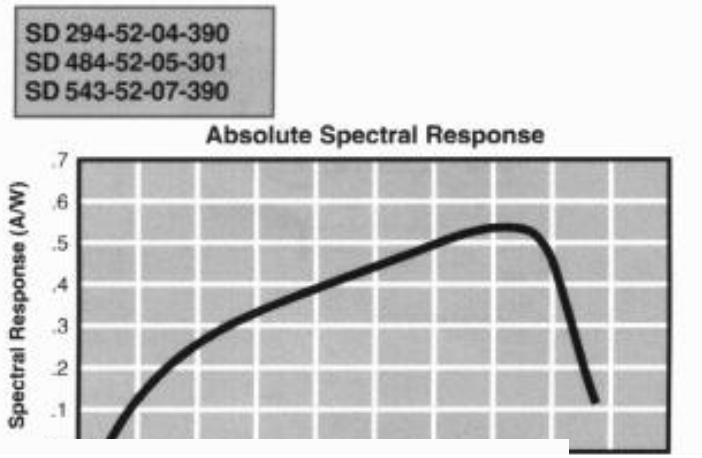
Specifications

Part Number	Number of Elements	Element Dimensions	Pitch	Responsivity	Shunt[1] Resistance	Dark Current[1] @ 10V	Capacitance @ 0V	Uniformity[2]	NEP[3]
		(mm)	(mm)	(min) (A/W)	(min) (M-Ohm)	(max) (nA)	(max) (pF)	(typ) (%)	(typ) (W/√ Hz)
SD 058-51-02-395	4	0.635 x 0.648	0.673	0.5 @ 900nm	500	0.8	10	± 5	$1.4x10^{-14}$
SD 219-51-03-301	12	0.965 x 2.01	1.01	0.35 @ 633nm	200	2.7	40	± 5	$2.0x10^{-14}$
SD 294-52-04-390	16	1.00 x 1.78	1.57	0.28 @ 540nm	250	0.5	200	± 5	$3.2x10^{-14}$
SD 484-52-05-301	32	0.508 x 5.89	0.635	0.10 @ 365nm 0.22 @ 500nm 0.33 @ 700nm	50	N/A	500	± 5	$5.2x10^{-14}$
SD 543-52-07-390	76	0.280 x 6.35	0.310	0.30 @ 500nm 0.50 @ 900nm	250	0.8	200	± 7.5	$1.0x10^{-14}$

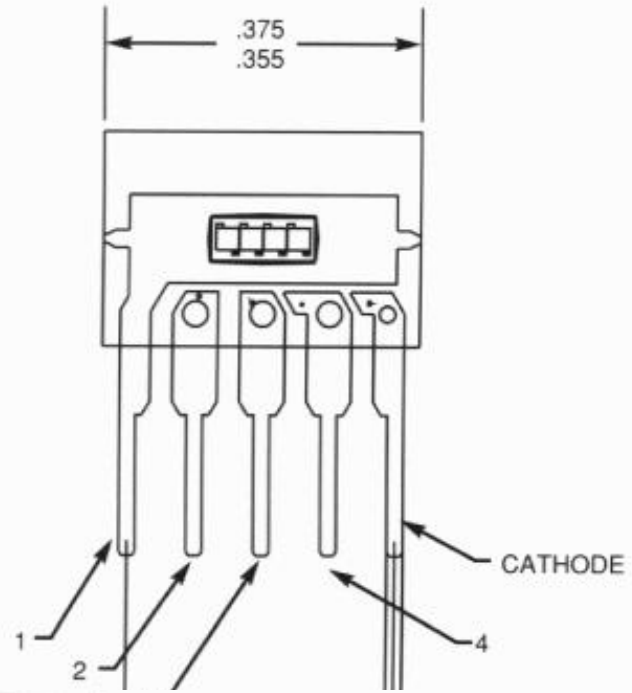
All specifications are per element.

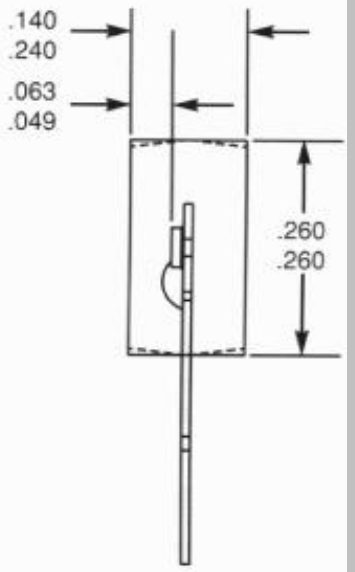
1.Dark Current and Shunt Resistance vary with temperature as follows: for T>23° C, $I_D=1.09\Delta\ ^{T}I_{D23}$, $R_{SH}=0.9\Delta\ ^{T}R_{SH23}$ and for T<23° C, $I_D=I_{D23}/1.09^{\Delta\ T}$, $R_{SH}=R_{SH23}/0.9^{\Delta\ T}$, where Δ T is the temperature difference from 23° C, and I_{D23} and R_{SH23} are the dark current and shunt resistance at 23° C.
2.Element to element responsivity uniformity is measured at the longest wavelength specified for responsivity of each part.
3.Test conditions are V_B=10mV and highest responsivity value listed in the table.



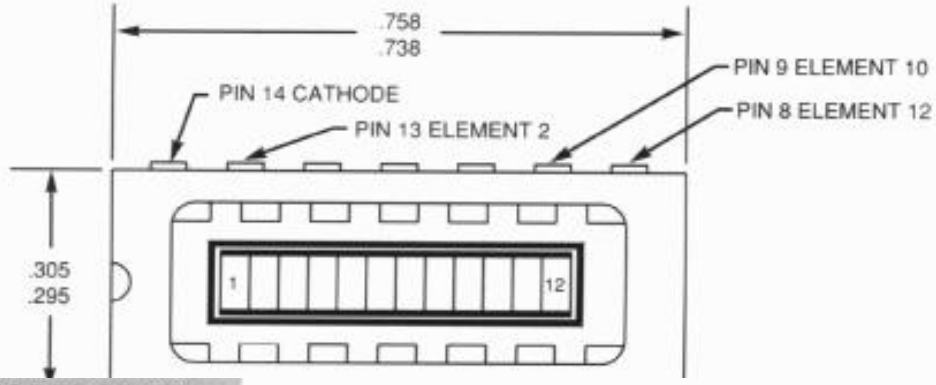


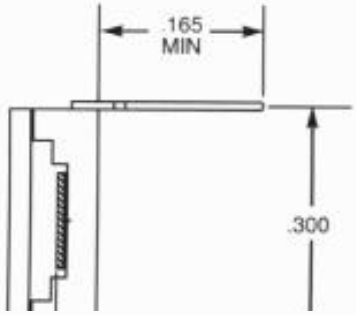
SD 058-51-03-395





SD 219-51-03-301





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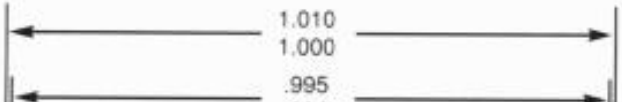

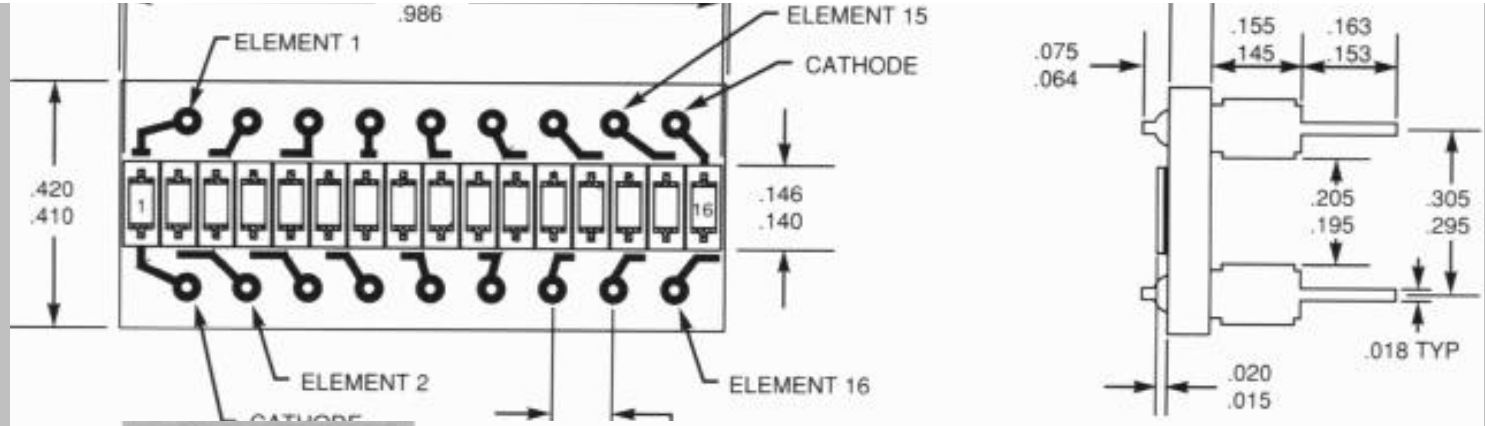

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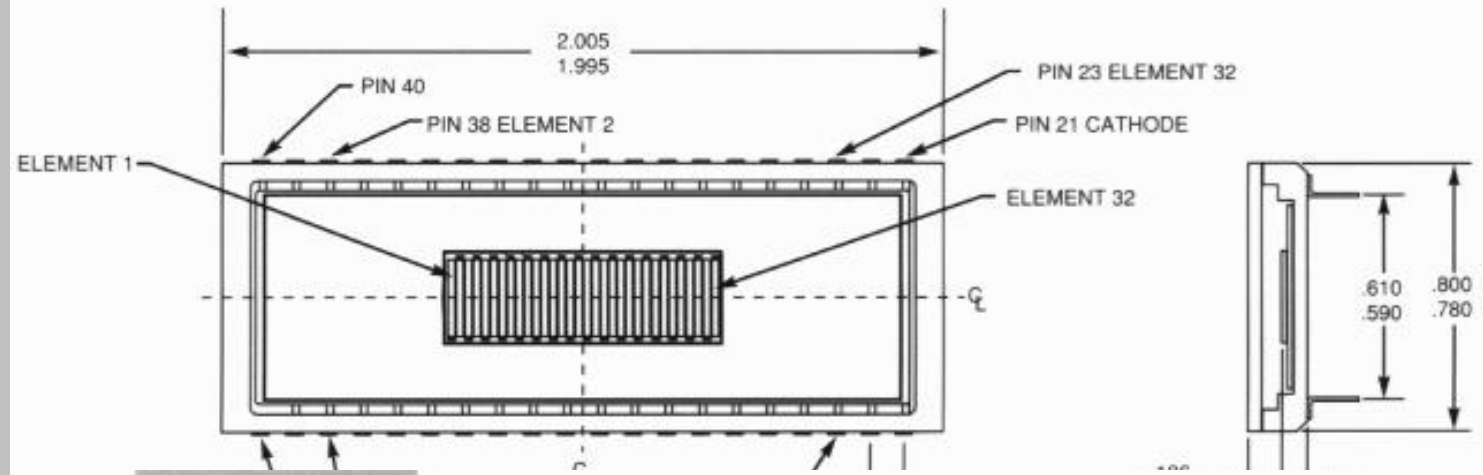
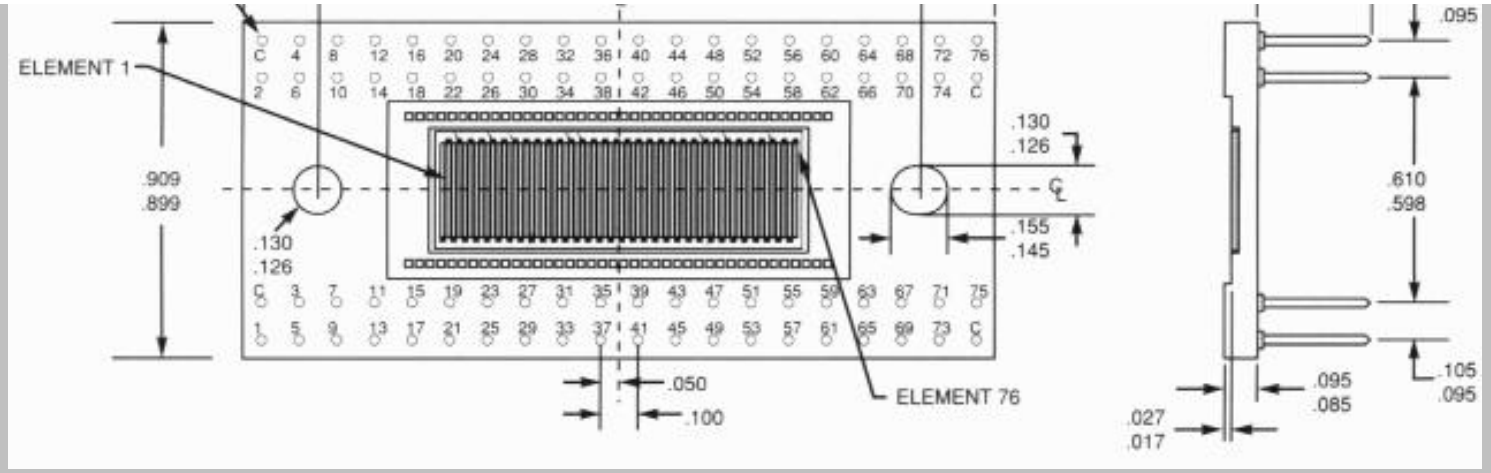


SD 543-52-07-390


ELEMENT 1
.909
.899
.130
.126
.130
.126
.155
.145
.050
.100
ELEMENT 76
.095
.610
.598
.105
.095
.095
.085
.027
.017